

Amendments to the Claims

These claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A micro-mechanical thermal structure, comprising:
 two layers of material with different thermal expansion coefficients in a first direction
 and a second direction respectively, ~~whereby~~ the first direction is being transverse to the second
 direction and the two layers comprising an oriented polymer, ~~whereby~~ wherein the director of the
 molecules of the oriented polymer of the first layer is transverse to the director of the molecules
 of the oriented polymer of the second layer.

2. (original) A micro-mechanical thermal structure as claimed in claim 1 wherein the oriented
 polymer comprises a liquid crystalline polymeric material.

3. (original) A micro-mechanical thermal structure as claimed in claim 1 wherein the two
 layers constitute a single layer wherein the director of the liquid crystalline molecules on one
 side of the single layer is rotated with respect to the director of the liquid crystalline molecules
 on the opposite side of the single layer.

4. (original) A micro-mechanical thermal structure as claimed in claim 3, wherein the liquid
 crystalline molecules are splay oriented with the director at one side of the single layer being
 oriented parallel to the single layer and the director at the other side of the single layer being
 oriented perpendicular to the single layer.

5. (original) A micro-mechanical thermal structure as claimed in claim 1 wherein the director of the liquid crystalline molecules is parallel to the layers.
6. (original) Thermo-optical modulator comprising a plurality of micro-mechanical thermal structures as claimed in claim 1 ordered on a substrate.
7. (original) Thermo-optical modulator as claimed in claim 6 wherein the layers are provided with a reflective coating or an absorbing coating.
8. (original) Thermo-optical modulator as claimed in claim 6 wherein the oriented polymer layers comprise a dichroic guest-host dye for absorbing light.
9. (original) Method of manufacturing a micro-mechanical thermal structure comprising the steps of:
 - shaping a mold with a desired surface relief for replicating the shape of the micro-mechanical thermal structure;
 - providing the mold with an orientation-inducing layer to obtain a molecular orientation in the monomeric state of liquid crystalline monomers,
 - pressing a reactive liquid crystalline monomeric material between the mold and a substrate;
 - polymerizing the liquid crystalline monomeric material;
 - releasing the mold from the substrate whereby the micro-mechanical thermal structure of the substrate is obtained.

10. (original) Method of manufacturing a micro-mechanical thermal structure as claimed in claim 9, wherein the step of providing the mold with an orientation-inducing layer comprises further steps of:

coating the surface of the mold with a photo-alignment layer; and

exposing the photo-alignment layer to UV radiation to obtain a structure inducing a predetermined direction of the director of the liquid crystalline molecules on the mold surface.

11. (original) Method of manufacturing a micro-mechanical thermal structure as claimed in claim 7, wherein the step of exposing the photo-alignment layer comprises two sub-steps of

– exposing the photo-alignment layer to ultra-violet radiation with a first linear polarization direction; and

exposing the photo-alignment layer to ultra-violet radiation with a second linear polarization direction, which second polarization direction is different from the first polarization direction.